

REMARKS

The Office Action dated June 1, 2006 has been carefully reviewed. Claims 9-19 are pending in this application. Applicants request reconsideration of this application in light of the remarks presented herein.

AMENDMENTS TO THE SPECIFICATION

The specification has been amended to address the Examiner's objection.

CLAIM REJECTIONS BASED ON § 103 - LABINOV/SKALA

In the official action dated June 1, 2006, claims 9, 12, 14, 17, and 19 were rejected by the Examiner under 35 U.S.C. § 103(a) as being obvious over U.S. Application Publication 2002/0160238 to Labinov et al. ("Labinov"), and further in view of U.S. Application Publication 2003/0134166 to Skala et al. ("Skala").

A. The Rejections of Claims 9 and 14

In the official action dated June 1, 2006, the Examiner rejected claims 9 and 14 alleging that Fig. 6 of Labinov teaches a fuel reforming system that comprises: a turbocharger having a turbine (expander) 120, with a reformat gas inlet (from reformer 102 as illustrated in FIG. 6), a compressor 106 with a pressurized air outlet (illustrated by an arrow from the air compressor 106 extending to an air separator 123), a fuel reformer 102, and a reformat gas outlet fluidly coupled to the reformat gas inlet of the turbine (expander) 120 (as illustrated in Fig. 6).

The Examiner contends that Labinov fails to show the fuel reformer 102 as having an air inlet fluidly coupled to the pressurized air outlet of the compressor 106. The Examiner further contends that Skala teaches a fuel processor control system comprising a fuel processor 54 and

an air compressor 64 supplying air to the fuel processor 54 in order to control the supply of air thereto. The Examiner finally alleges that it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the fuel reformer of Labinov have an air inlet fluidly coupled to the pressurized air outlet of the air compressor, as taught by Skala, in order to control the supply of air thereto.

It is a fundamental tenet of patent law that a prima facie case of obviousness cannot be established in the absence of some teaching, motivation, or suggestion supporting the modification or combination of the references relied upon in making the rejection. The well-established rule of law for a finding of obviousness under 35 U.S.C. § 103(a) was provided by the Court of Appeals for the Federal Circuit as follows, “[w]hen patentability turns on the question of obviousness, the search for and analysis of the prior art includes evidence relevant to the finding of whether there is a teaching, motivation, or suggestion to select and combine the references relied on as evidence of obviousness.” *In re Lee*, 277 F.3d 1338 at 1343, 61 U.S.P.Q.2d 1430 (Fed. Cir. 2002). The teaching or suggestion to make the claimed combination must be found in the prior art, and not based on applicant's disclosure. *See In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). “To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.” *Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985).

The Examiner has not put forth a legally sufficient teaching, motivation, or suggestion in support of the proposed combination of Labinov and Skala. The initial burden is on the

Examiner to provide some suggestion of the desirability of doing what the inventor has done. In an apparent attempt to establish a *prima facie* case of obviousness in the present case, the Examiner stated that it would have been obvious for the fuel reformer 102 of Labinov to have an air inlet fluidly coupled to the pressurized air outlet of the air compressor 106, as taught by Skala, “to control the supply of air thereto”. Use of such a conclusory statement (i.e., “to control the supply of air”) cannot function as a legally sufficient substitute for the factual analysis required by the Federal Circuit. For example, even if, for arguments sake, one of ordinary skill in the art had the general desire to “control the supply of air” to Labinov’s fuel reformer, the Examiner has failed to point to any teaching, motivation, or suggestion as to how such a general desire would lead to the specific combination of Skala with Labinov.

Furthermore, not only has the Examiner not offered a legally sufficient teaching, motivation, or suggestion to combine Labinov and Skala, it is believed that no such motivation exists. All of the embodiments in Labinov described with particularity use *steam reformers* for the fuel reformer 102. As described, such reformers utilize a supply of steam and fuel to generate a reformat gas. As one skilled in the art might expect, it is not apparent that a steam reformer would have a use for compressed air, such as that provided by the air compressor 106. Thus one skilled in the art would not be motivated to supply a flow of compressed air to the steam reformer of Labinov, much less to do so by the very specific method of Skala.

Furthermore, to couple the outlet of the compressor 106 with an air inlet of the reformer 102 would destroy the function of the invention disclosed in the Labinov reference. Both the CCPA and the Federal Circuit have consistently held that when an obviousness rejection is based upon a combination or modification of a reference that destroys the intent, purpose, or function of the invention disclosed in the reference, such a proposed combination or modification is not proper and a *prima facie* case of obviousness cannot be made (see, e.g., *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984)). In this case, the fuel reformer 102 of Labinov is

disclosed as serving two purposes: 1) to provide hydrogen and carbon monoxide to the fuel cells, such as fuel cells 110, 111; and 2) to supply compressed air to the fuel cells by operating the turbine 120/compressor 106. The Examiner's proposition destroys one of these purposes by requiring compressed air from the compressor 106 to be supplied to the fuel reformer 102 instead of to the fuel cells. The Examiner's proposed configuration requires a supplemental supply of air for the fuel cells, while at the same time supplying compressed air from the compressor 106 to a steam fuel reformer, which likely has no use for compressed air as previously discussed. Therefore, to couple the outlet of the air compressor 106 to an inlet of the fuel reformer 102 would destroy the intent of Labinov of using the output of the fuel reformer 102 to supply both fuel and compressed air (via the compressor 106) to the fuel cells. No one skilled in the art would couple an outlet of the air compressor 106 to an air inlet of the fuel reformer 102 *since the air compressor 106 is used to provide compressed air to fuel cells in the disclosed system*. To do so would destroy its intended function and purpose.

Because the Examiner has offered only a conclusory, unsupported statement as the legally required teaching, motivation, and suggestion to combine Labinov and Skala, and in light of the overwhelming reasons against such a combination, it appears that the Examiner is using the Applicant's application as a roadmap in developing her rejection. That is, the Examiner appears to be using hindsight reconstruction as a substitute for a factual basis for the rejection of the claims under 35 U.S.C. § 103. Such use of hindsight reconstruction is not proper. "There must be a reason apparent at the time the invention was made to a person of ordinary skill in the art for applying the teaching at hand, or the use of the teaching as evidence of obviousness will entail prohibited hindsight." *In re Nomiya, Kohisa, and Matsumura*, 509 F.2d 566, 184 USPQ 607 (CCPA 1975). "The Patent Office has the initial duty of supplying a factually basis for a rejection under 35 U.S.C. § 103. It may not, because it may doubt that the invention is patentable, resort to speculation, unfounded assumptions or hindsight reconstruction to supply deficiencies in its factual basis." *In re Rice*, 481 F.2d 1316, 178 USPQ 478, 479

(CCPA 1973). Therefore, in light of the foregoing discussion, the Examiner has failed to meet her burden in establishing a prima facie case of obviousness.

For the reasons set forth above, the Examiner's rejection of claims 9 and 14 are improper and should be withdrawn.

B. The Rejection of Claims 12

Claim 12 is dependent upon claim 9. As a result, the rejection of claim 12 should be withdrawn at least for the reasons discussed in regard to claim 9. In light of the overwhelming reasons for withdraw of the rejection of claim 9, any arguments specific to claim 12 are held in abeyance without prejudice or admission to any assertion made by the Examiner in order to expedite prosecution.

C. The Rejections of Claims 17 and 19

Claims 17 and 19 are dependent upon claim 14. As a result, the rejection of claims 17 and 19 should be withdrawn at least for the reasons discussed in regard to claim 14. In light of the overwhelming reasons for withdraw of the rejection of claim 14, any arguments specific to claims 17 and 19 are held in abeyance without prejudice or admission to any assertion made by the Examiner in order to expedite prosecution.

CLAIM REJECTIONS BASED ON § 103 - LABINOV/SKALA/SURMA

In the official action, the Examiner rejected claims 10 and 15 under 35 U.S.C. § 103(a) as being obvious over Labinov in view of Skala, as applied to claims 9 and 14, and further in view of U.S. Pat. No. 6,630,113 to Surma. Claims 10 and 15 are dependent upon claims 9 and 14, respectively. As a result, the rejections of claims 10 and 15 should be withdrawn for at least the

reasons discussed in regard to claim 9. In light of the overwhelming reasons for withdraw of the rejections of claims 9 and 14, any arguments specific to claims 10 and 15 are held in abeyance without prejudice or admission to any assertion made by the Examiner in order to expedite prosecution.

CLAIM REJECTIONS BASED ON § 103 - LABINOV/SKALA/BROMBERG

In the official action, the Examiner rejected claims 11, 13, 16, and 18 under 35 U.S.C. § 103(a) as being obvious over Labinov in view of Skala, as applied to claims 9 and 14, and further in view of U.S. Application Publication 2002/0194835 to Bromberg et al.

A. The Rejections of Claims 11 and 13

Claims 11 and 13 are dependent upon claim 9. As a result, the rejections of claims 11 and 13 should be withdrawn for at least the reasons discussed in regard to claim 9. In light of the overwhelming reasons for withdraw of the rejection of claim 9, any arguments specific to claims 11 and 13 are held in abeyance without prejudice or admission to any assertion made by the Examiner in order to expedite prosecution.

B. The Rejections of Claims 16 and 18

Claims 16 and 18 are dependent upon claim 14. As a result, the rejections of claims 16 and 18 should be withdrawn for at least the reasons discussed in regard to claim 14. In light of the overwhelming reasons for withdraw of the rejection of claim 14, any arguments specific to claims 16 are held in abeyance without prejudice or admission to any assertion made by the Examiner in order to expedite prosecution.

CONCLUSION

In view of the foregoing remarks, it is submitted that this application is in condition for allowance. Action to that end is hereby solicited.

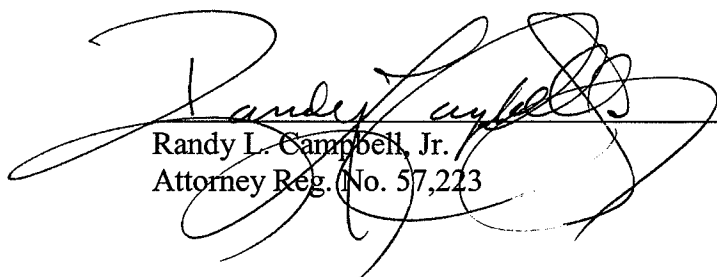
In the event that there are any questions related to this response in particular, or to the application in general, the undersigned would appreciate the opportunity to address those questions directly in a telephone interview to expedite the prosecution of this application for all concerned.

It is respectfully requested that, if necessary to effect a timely response, this paper be considered as a Petition for an Extension of Time sufficient to effect a timely response and shortages in other fees be charged, or any overpayment in fees be credited, to the Account of Barnes & Thornburg LLP, Deposit Account No. 10-0435 with reference to file 9501-72760.

Respectfully submitted,

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